Storm Water Management Plan
For Priority Projects
(Major SWMP)

Project Name:	TPM 20842
Permit Number (Land Development Projects):	LOG NO. 04-02-026
Work Authorization Number (CIP):	
Applicant:	Thomas Fitzpatrick
Applicant's Address:	4111 Paseo De Tortugas, Torrance CA 90505
Plan Prepare By *(Leave blank if same as applicant):*	*William Karn Surveying, Inc.* *PO Box 518, Fallbrook CA 92028*
Date:	December 30, 2005
Revision Date (If applicable):	

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The County of San Diego Watershed Protection, Storm Water Management, and Discharge Control Ordinance (WPO) (Ordinance No. 9424) requires all applications for a permit or approval associated with a Land Disturbance Activity must be accompanied by a Storm Water Management Plan (SWMP) (section 67.804.f). The purpose of the SWMP is to describe how the project will minimize the short and long-term impacts on receiving water quality. Projects that meet the criteria for a priority project are required to prepare a Major SWMP.

Project Review Stage	YES	NO	If YES, Provide Revision Date
TPM		X	

Completion of the following checklist and attachments will fulfill the requirements of a Major SWMP for the project listed above.

PROJECT DESCRIPTION

Please provide a brief description of the project in the following box:

The project proposes a minor subdivision with parcels ranging in size from 2.3 to 3.1 acres gross and a density of one dwelling unit per 2.7 acres gross. The entire property consists of 10.8 acres, located in the westerly Valley Center Area. More specifically, it is located northeast of the intersection of Castle Crest Drive and Castle Heights Drive. The project will be a 4 parcel minor subdivision. The property generally slopes from the northeast to the west, with elevations as high as 1195 feet in the northeast corner and 990 feet in the far western tip. A large majority of the property is under 25%. The project area has approximately 7.28 acres or 67% of its area currently in agriculture (avocados) with the remaining area vacant. All parcels will be provided with water from the Valley Center Municipal Water District. The existing irrigation system will be left in tact except for alterations needed to operate the system on individual parcels, with connects to the imported water.

Please check the box that best describes the project. Does the project meet one of the following criteria?

PRIORITY PROJECT	YES	NO
Redevelopment within the County Urban Area that creates or adds at least 5,000 net square feet of additional impervious surface area		X
Residential development of more than 10 units		X
Commercial developments with a land area for development of greater than 100,000 square feet		X
Automotive repair shops		X
Restaurants, where the land area for development is greater than 5.000 square Feet		X
Hillside development, in an area with known erosive soil conditions, where there will be grading on any natural slope that is twenty-five percent or greater, if the development creates 5,000 square feet or more of impervious surface		X
Environmentally Sensitive Areas: All development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition.		X
Parking Lots 5,000 square feet or more or with 15 parking spaces or more and potentially exposed to urban runoff		X
Streets, roads, highways, and freeways which would create a new paved surface that is 5,000 square feet or greater	X	

Limited Exclusion: Trenching and resurfacing work associated with utility projects are not considered priority projects. Parking lots, buildings and other structures associated with utility projects are subject to SUSMP requirements if one or more of the criteria above are met.

If you answered **NO** to all the questions, then **STOP.** Complete a Minor SWMP for your project.

If you answered **YES** to any of the questions, please continue.

The following questions provide a guide to collecting information relevant to project stormwater quality issues. Please provide a description of the findings in text box below.

	QUESTIONS	COMPLETED	NA
1.	Describe the topography of the project area.	Rolling hills	
2.	Describe the local land use within the project area and adjacent areas.	Avocado grove	
3.	Evaluate the presence of dry weather flow.	No dry weather	
4.	Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).	Moosa Creek Hyd. Sub Unit	
5.	For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.	No 303d onsite	
6.	Determine if there are any High Risk Areas (municipal or domestic water supply reservoirs or groundwater percolation facilities) within the project limits.	No high risk areas downstream	
7.	Determine the Regional Board special requirements, including TMDLs, effluent limits, etc.	No special req.	
8.	Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.	Annual rainfall 15" to 20"	
9.	If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.	Soil Group B w/good perc rates	
10.	Determine contaminated or hazardous soils within the project area.	No haz. soil onsite	

Please provide a description of the findings in the following box. For example:

The project is located in the San Luis Rey Hydrologic Unit. The area is characterized by an avocado grove and rolling hills. Runoff from site flows along a natural drainage swale approximately 1.25 miles SW to Moosa Creek, then 6.5 miles to the San Luis Rey River.

Complete the checklist below to determine if Treatment Best Management Practices (BMPs) are required for the project.

No.	CRITERIA	YES	NO	INFORMATION
1.	Is this an emergency project		X	If YES, go to 6. If NO, continue to 2.
2.	Have TMDLs been established		X	If YES, go to 5.

No.	CRITERIA	YES	NO	INFORMATION
	for surface waters within the project limit?		X	If NO, continue to 3.
3.	Will the project directly discharge to a 303(d) impaired receiving water body?		X	If YES, go to 5. If NO, continue to 4.
4.	Is this project within the urban and environmentally sensitive areas as defined on the maps in Appendix B of the *County of San Diego Standard Urban Storm Water Mitigation Plan for Land Development and Public Improvement Projects?*		*X*	If YES, continue to 5. If NO, go to 6.
5.	Consider approved Treatment BMPs for the project.	X		If YES, go to 7.
6.	Project is not required to consider Treatment BMPs			Document for Project Files by referencing this checklist.
7.	End			

Now that the need for a treatment BMPs has been determined, other information is needed to complete the SWMP.

WATERSHED

Please check the watershed(s) for the project.

□ San Juan	□ Santa Margarita	☒ San Luis Rey	□ Carlsbad
□ San Dieguito	□ Penasquitos	□ San Diego	□ Pueblo San Diego
□ Sweetwater	□ Otay	□ Tijuana	

Please provide the hydrologic sub-area & number(s)

Number	Name
903.13	Moosa Hydrologic Sub Area

Please provide the beneficial uses for Inland Surface Waters and Ground Waters. Beneficial Uses can be obtained from the Water Quality Control Plan For The San Diego Basin, which is available at the Regional Board office or at
http://www.swrcb.ca.gov/rwqcb9/programs/basinplan.html.

SURFACE WATERS	Hydrologic Unit Basin Number	MUN	AGR	IND	PROC	GWR	FRESH	POW	REC1	REC2	BIOL	WARM	COLD	WILD	RARE	SPWN
Inland Surface Waters		*	X	X					X	X		X		X		
Ground Waters		X	X	X												

X Existing Beneficial Use
0 Potential Beneficial Use
** Excepted from Municipal*

POLLUTANTS OF CONCERN
Using Table 1, identify pollutants that are anticipated to be generated from the proposed priority project categories. Pollutants associated with any hazardous material sites that have been remediated or are not threatened by the proposed project are not considered a pollutant of concern.

Table 1. Antici ated and Potential Pollutants Generated b Land Use T e

	General Pollutant Catelgorâes								
PrEOrEty Project Categorâes	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P~1~	P~2~	P	X
Commercial Development >100,000 ft²	P~	P~1~		P~a~	X	P~S~	X	P~S~	P~S~
Automotive Repair Shops			X	X~4~~5~	X		X		
Restaurants					X	X	X	X	
Hillside Development >5,000 ft²	X	X			X	X	X		X

	General Pollutant Categories								
Priority Project Categories	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Parking Lots	P(1)	P(1)	X		X	P(1)	X		P(1)
Streets, Highways & Freeways	X	P(1)	X	X(4)	X	P(5)	X		

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

Note: If other monitoring data that is relevant to the project is available. Please include as Attachment C.

CONSTRUCTION BMPs

Please check the construction BMPs that may be used. The BMPs selected are those that will be implemented during construction of the project. The applicant is responsible for the placement and maintenance of the BMPs selected.

- ☒ Silt Fence
- ☒ Fiber Rolls
- ☒ Gravel Bag
- ☐ Street Sweeping and Vacuuming
- ☐ Storm Drain Inlet Protection
- ☒ Stockpile Management
- ☒ Solid Waste Management
- ☒ Stabilized Construction Entrance/Exit
- ☐ Dewatering Operations
- ☐ Vehicle and Equipment Maintenance
- ☐ Desilting Basin
- ☐ Berm
- ☐ Sandbag Barrier
- ☒ Material Delivery and Storage
- ☒ Spill Prevention and Control
- ☒ Concrete Waste Management
- ☒ Water Conservation Practices
- ☒ Paving and Grinding Operations

☒ Any minor slopes created incidental to construction and not subject to a major or minor grading permit shall be protected by covering with plastic or tarp prior to a rain event, and shall have vegetative cover reestablished within 180 days of completion of the slope and prior to final building approval.

SITE DESIGN

To minimize stormwater impacts, site design measures must be addressed. The following checklist provides options for avoiding or reducing potential impacts during project planning. If

YES is checked, it is assumed that the measure was used for this project. If NO is checked, please provide a brief explanation why the option was not selected in the text box below.

	OPTIONS	YES	NO	N/A
1.	Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?			X
2.	Can the project be designed to minimize impervious footprint?			
3.	Conserve natural areas where feasible?	X		
4.	Where landscape is proposed, can rooftops, impervious sidewalks, walkways, trails and patios be drained into adjacent landscaping?	X		
5.	For roadway projects, can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?	X		
6.	Can any of the following methods be utilized to minimize erosion from slopes:			
	6.a. Disturbing existing slopes only when necessary?	X		
	6.b. Minimize cut and fill areas to reduce slope lengths?	X		
	6.c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?			X
	6.d. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?			X
	6.e. Rounding and shaping slopes to reduce concentrated flow?	X		
	6.f. Collecting concentrated flows in stabilized drains and channels?	X		

Retaining walls were not necessary as the cut & fill slopes are minor. Again, terraces and benches were not needed because of the minor cut & fill slopes.

If the project includes work in channels, then complete the following checklist. Information shall be obtained from the project drainage report.

No.	CRITERIA	YES	NO	N/A	COMMENTS
1.	Will the project increase velocity or volume of downstream flow?		X		If YES go to 5.
2.	Will the project discharge to unlined channels?	X			If YES go to 5.
3.	Will the project increase potential sediment load		X		If YES go to 5.

No.	CRITERIA	YES	NO	N/A	COMMENTS
	of downstream flow?				
4.	*Will the project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect upstream and/or downstream channel stability?*		X		*If YES go to 7.*
5.	*Review channel lining materials and design for stream bank erosion.*			X	*Continue to 6.*
6.	*Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity.*	X			*Continue to 7.*
7.	*Include, where appropriate, energy dissipation devices at culverts.*	X			*Continue to 8.*
8.	*Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour.*	X			*Continue to 9.*
9.	*Include, if appropriate, detention facilities to reduce peak discharges.*		X		
10.	*"Hardening" natural downstream areas to prevent erosion is not an acceptable technique for protecting channel slopes, unless pre development conditions are determined to be so erosive that hardening would be required even in the absence of the proposed development.*		X		*Continue to 11.*
11.	*Provide other design principles that are comparable and equally effective.*			X	*Continue to 12.*
12.	*End*				

SOURCE CONTROL

Please complete the following checklist for Source Control BMPs. If the BMP is not applicable for this ro ect, then check N/A onl at the main cate o.

BMP			YES	NO	N/A
1.	*Provide Storm Drain System Stenciling and Signage*				
	1.a.	*All storm drain inlets and catch basins within the project area shall have a stencil or tile placed with prohibitive language (such as: "NO DUMPING - DRAINS TO OCEAN ") and/or graphical icons to discourage illegal dumping.*			X
	1.b.	*Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area.*		X	
2.	*Design Outdoors Material Storage Areas to Reduce Pollution Introduction*				
	2.a.	*This is a detached single-family residential project. Therefore, personal storage areas are exempt from this requirement.*	X		

	BMP		YES	NO	N/A
	2.b.	Hazardous materials with the potential to contaminate urban runoff shall either be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.			X
	2.c.	The storage area shall be paved and sufficiently impervious to contain leaks and spills.			X
	2.d.	The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.			X
3.	**Design Trash Storage Areas to Reduce Pollution Introduction**				
	3.a.	Paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash; or,	X		
	3.b.	Provide attached lids on all trash containers that exclude rain, or roof or awning to minimize direct precipitation.	X		
4.	**Use Efficient Irrigation Systems & Landscape Design**				
	The following methods to reduce excessive irrigation runoff shall be considered, and incorporated and implemented where determined applicable and feasible.				
	4.a. Employing rain shutoff devices to prevent irrigation after precipitation.		X		
	4.b. Designing irrigation systems to each landscape area's specific water requirements.		X		
	4.c. Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.		X		
	4.d. Employing other comparable, equally effective, methods to reduce irrigation water runoff.		X		
5.	**Private Roads**				
	The design of private roadway drainage shall use at least one of the following				
	5.a.	Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.	X		
	5.b.	Urban curb/swale system: street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter.	X		
	5.c.	Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to storm water conveyance system.			X
	5.d.	Other methods that are comparable and equally effective within the project.			X
6.	**Residential Driveways & Guest Parking**				
	The design of driveways and private residential parking areas shall use one at least of the following features.				
	6.a.	Design driveways with shared access, flared (single lane at street) or wheelstrips (paving only under tires); or, drain into landscaping prior to discharging to the storm water conveyance system.	X		
	6.b.	Uncovered temporary or guest parking on private residential lots may be: paved with a permeable surface; or, designed to drain into landscaping prior to discharging to the storm water conveyance system.	X		
	6.c.	Other features which are comparable and equally effective.			X
7.	**Dock Areas**				

		BMP	YES	NO	N/A
		Loading/unloading			
	7.a.	Cover loading dock areas, or design drainage to preclude urban run-on and runoff.			X
	7.b.	Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.			X
	7.c.	Other features which are comparable and equally effective.			X
8.	**Maintenance Bays**				
	Maintenance bays shall include the following.				
	8.a.	Repair/maintenance bays shall be indoors; or, designed to preclude urban run-on and runoff.			X
	8.b.	Design a repair/maintenance bay drainage system to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.			X
	8.c.	Other features which are comparable and equally effective.			X
9.	**Vehicle Wash Areas**				
	Priority projects that include areas for washing/steam cleaning of vehicles shall use the following.				
	9.a. Self-contained; or covered with a roof or overhang.				X
	9.b. Equipped with a clarifier or other pretreatment facility.				X
	9.c. Properly connected to a sanitary sewer.				X
	9.d. Other features which are comparable and equally effective.				X
10.	**Outdoor Processing Areas**				
	Outdoor process equipment operations, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, waste piles, and wastewater and solid waste treatment and disposal, and other operations determined to be a potential threat to water quality by the County shall adhere to the following requirements.				
	10.a.	Cover or enclose areas that would be the most significant source of pollutants; or, slope the area toward a dead-end sump; or, discharge to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency.			X
	10.b.	Grade or berm area to prevent run-on from surrounding areas.			X
	10.c.	Installation of storm drains in areas of equipment repair is prohibited.			X
	10.d.	Other features which are comparable or equally effective.			X
11.	**Equipment Wash Areas**				
	Outdoor equipment/accessory washing and steam cleaning activities shall be.				
	11.a. Be self-contained; or covered with a roof or overhang.				X
	11.b. Be equipped with a clarifier, grease trap or other pretreatment facility, as appropriate				X
	11.c. Be properly connected to a sanitary sewer.				X
	11.d. Other features which are comparable or equally effective.				X
12.	**Parking Areas**				
	The following design concepts shall be considered, and incorporated and implemented where determined applicable and feasible by the County.				
	12.a.	Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.	X		

BMP			YES	NO	N/A
	12.b.	Overflow parking (parking stalls provided in excess of the County's minimum parking requirements) may be constructed with permeable paving.			X
	12.c.	Other design concepts that are comparable and equally effective.			X
13.	**Fueling Area**				
	Non-retail fuel dispensing areas shall contain the following.				
	13.a.	Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.			X
	13.b.	Paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.			X
	13.c.	Have an appropriate slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.			X
	13.d.	At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.			X

N/A

Single family dwelling on large parcels

Please list other project specific Source Control BMPs in the following box. Write **N/A** if there are none and briefly explain.

TREATMENT CONTROL

To select a structural treatment BMP using Treatment Control BMP Selection Matrix (Table 2), each priority project shall compare the list of pollutants for which the downstream receiving waters are impaired (if any), with the pollutants anticipated to be generated by the project (as identified in Table 1). Any pollutants identified by Table 1, which are also causing a Clean Water Act section 303(d) impairment of the receiving waters of the project, shall be considered primary pollutants of concern. Priority projects that are anticipated to generate a primary pollutant of concern shall select a single or combination of stormwater BMPs from Table 2, which **maximizes pollutant removal** for the particular primary pollutant(s) of concern.

Priority projects that are **not** anticipated to generate a pollutant for which the receiving water is Clean Water Act Section 303(d) impaired shall select a single or combination of stormwater BMPs from Table 2, which are effective for pollutant removal of the identified secondary pollutants of concern, consistent with the "maximum extent practicable" standard.

Table 2. Treatment Control BMP Selection Matrix

Pollutant of Concern	*Treatment Control BMP Categories*						
	Biofilters*	Detention Basins	Infiltration Basins[2]	Wet Ponds or Wetlands	Drainage Inserts	Filtration	Hydrodynamic Separator Systems[3]
Sediment	M	H	H	H	L	H	M
Nutrients	L	M	M	M	L	M	L
Heavy Metals	M	M	M	H	L	H	L
Organic Compounds	U	U	U	M	L	M	L
Trash & Debris	L	H	U	H	M	H	M
Oxygen Demanding Substances	L	M	M	M	L	M	L
Bacteria	U	U	H	H	L	M	L
Oil & Grease	M	M	U	U	L	H	L
Pesticides	U	U	U	L	L	U	L

(1) Copermittees are encouraged to periodically assess the performance characteristics of many of these BMPs to update this table.
(2) Including and porous pavement.
trenches hydrodynamic devices and baffle boxes.
(3) Also known as

A Treatment BMP must address runoff from developed areas. Please provide the post-construction water quality values for the project. Label outfalls on the BMP map. Q_{WQ} is dependent on the type of treatment BMP selected for the project.

Outfall	Tributary Area (acres)	Q_{100} (cfs)	Q_{WQ} (cfs)
1	10.8	21 cfs	5.4 cfs

Please check the box(s) that best describes the Treatment BMP(s) selected for this project.

Biofilters

☒ Grass swale
☒ Grass strip
☐ Wetland vegetation swale
☐ Bioretention

Detention Basins

☐ Extended/dry detention basin with grass lining
☐ Extended/dry detention basin with impervious lining

Infiltration Basins
□ Infiltration basin
□ Infiltration trench
□ Porous asphalt
□ Porous concrete
□ Porous modular concrete block
Wet Ponds or Wetlands
□ Wet pond/basin (permanent pool)
□Constructed wetland **Drainage**
Inserts (See note below)
□Oil/Water separator
□ Catch basin insert
□ Storm drain inserts
□Catch basin screens
Filtration
□ Media filtration
□ Sand filtration
Hydrodynamic Separator Systems
□ Swirl Concentrator
□ Cyclone Separator
□ Baffle Separator
□ Gross Solids Removal Device
□ Linear Radial Device

Note: Catch basin inserts and storm drain inserts are excluded from use on County maintained right-of-way and easements.

Include Treatment Datasheet as Attachment E. The datasheet should include the following:	**COMPLETED**	**NO**
1. Description of how treatment BMP was designed. Provide a description for each type of treatment BMP.	X	
2. Engineering calculations for the BMP(s)	X	

The project is a TPM proposed four two acre parcels. The project with the large parcels with avocado planting will not need detention basins, infiltration basins wet ponds or wetlands. There are not any drainage structures therefore, drainage inserts, filtration or hydro dynamic separator are not appropriate. Bio filters such as grass swales and grass strips are appropriate for sediments from unprotected areas and oil and grease from paved areas. Nutrients, heavy metals, organic compounds oxygen demanding substances bacteria and pesticides should be minimal for this large parcel subdivision.

Trash & debris will be controlled by each property owner and with property maintenance will not impact drainage swales. Therefore, bio filter, swales with rock rip rap to reduce velocity at discharge point are appropriate for TPM 20842.

MAINTENANCE

Please check the box that best describes the maintenance mechanism(s) for this project.

CATEGORY	SELECTED	
	YES	NO
First	x	
Second		
Third		
Fourth		

This project proposed private on and offsite road for access. The maintenance of these roads will be paid from assessment of the Home Owners Association (HOA). The long term fiscal resources for the selected maintenances of the bio filters will be part of the HOA responsibility.

Per Attachment "F" the annual cost of maintenance is estimated to be $2,972.00 and will be part of the HOA costs and the maps will be made to insure adequate easements are provided to the HOA to carry out the maintenance.

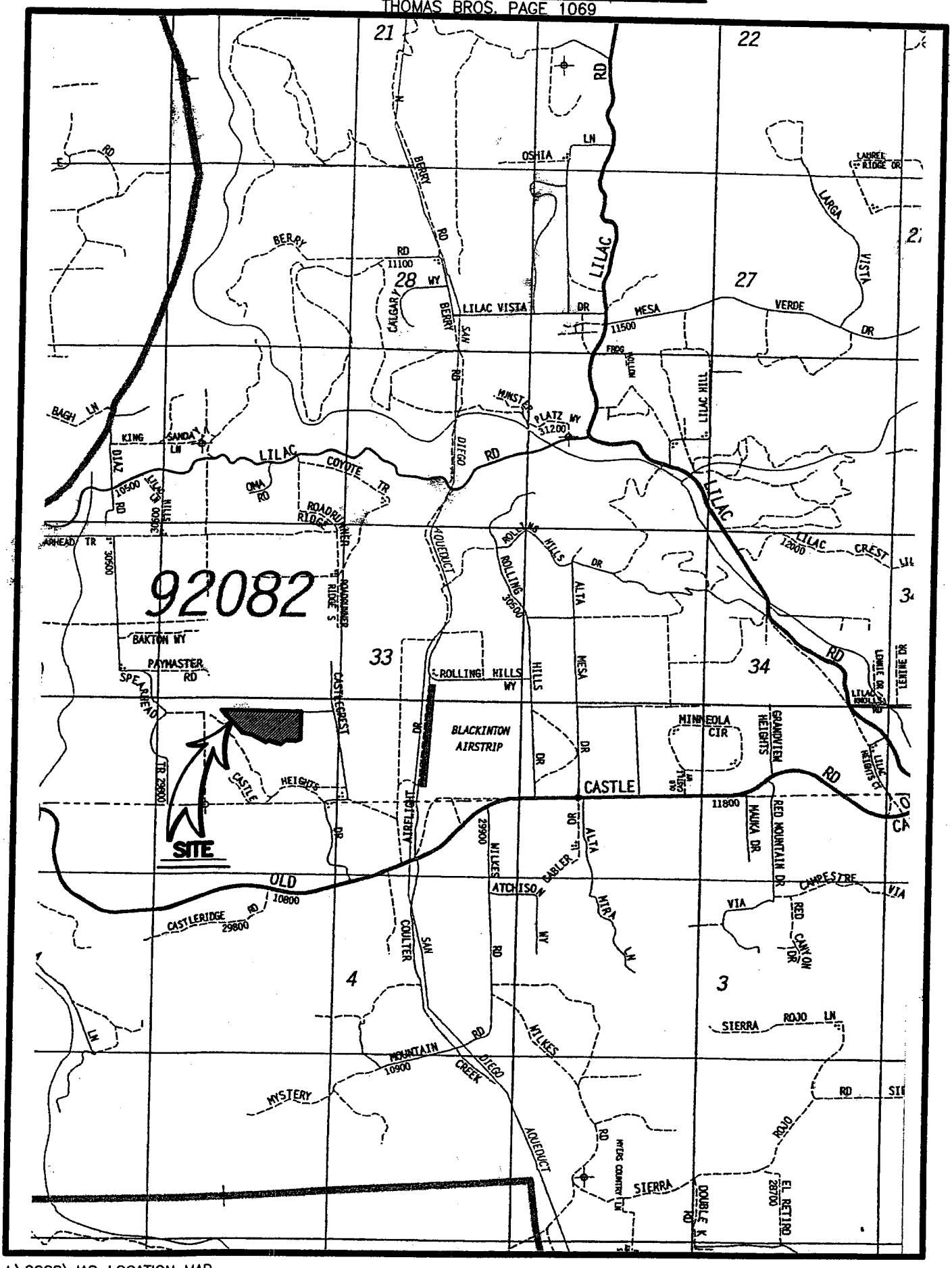
ATTACHMENTS

Please include the following attachments.

ATTACHMENT		COMPLETED	N/A
A	Project Location Map	X	
B	Site Map	X	
C	Relevant Monitoring Data	X	X
D	Treatment BMP Location Map	X	
E	Treatment BMP Datasheets	X	
F	Operation and Maintenance Program for Treatment BMPs	X	

ATTACHMENT A
LOCATION MAP

THOMAS BROS. PAGE 1069



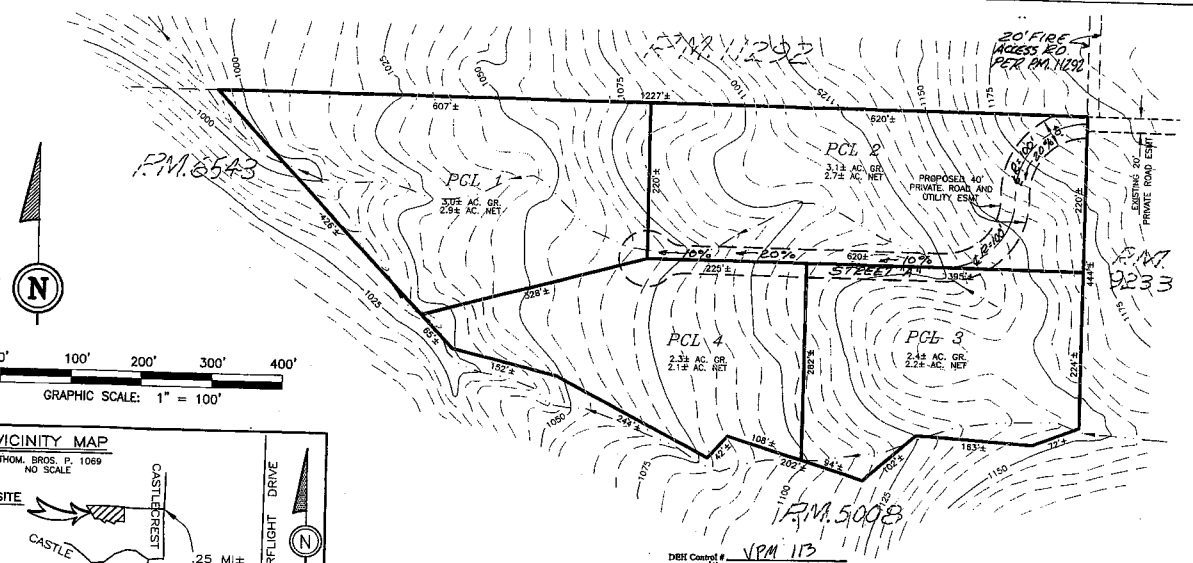
I:\8288\JAS_LOCATION MAP

ATTACHMENT B

PROJECT SITE MAP

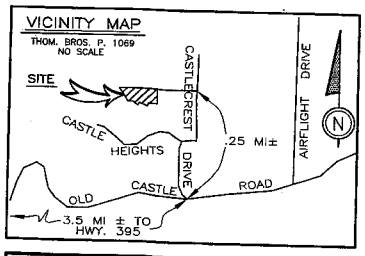
H.D.P.M. NO.

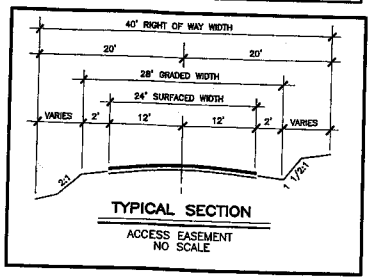
TENTATIVE PARCEL MAP



0' 100' 200' 300' 400'

GRAPHIC SCALE: 1" = 100'





NOTES

1) NO GRADING PROPOSED
2) CONTOURS FROM COUNTY TOPO 398-1737

SOLAR NOTE

ALL PARCELS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF ONE HUNDRED (100) SQUARE FEET OF SOLAR ACCESS FOR EACH FUTURE DWELLING UNIT ALLOWED BY THIS SUBDIVISION AS REQUIRED BY SECTION 81.401(n) OF THE SUBDIVISION ORDINANCE.

I:\8288\JAS_TPM

DEH Control # VPM 113
Parcels 4 shall have a layout of the sewage disposal system approved by the S.D. Dept. of Environmental Health prior to the approval of a Bldg. Permit and/or issuance of a Septic Tank Permit. Cuts and fills for driveways and building sites shall be made prior to approval of the layouts. An Additional expansion area of 100% of the initial tile line area shall be provided for potential expansion in the event of failure, by gravity flow.

EACH PARCEL IS APPROVED FOR A STANDARD SEPTIC TANK CONNECTED TO 4 FEET OF TILE DRAIN FIELD TO SERVE A THREE-BEDROOM DWELLING; PROVIDED THE ORIGINAL SOIL IS NOT DISTURBED IN ANY WAY, SUCH AS CUTTING, FILLING OR RIPPING. THIS DOES NOT CONSTITUTE APPROVAL FOR COMMERCIAL ESTABLISHMENTS.

ok DATA AND RECOMMENDATION IN THE NAME OF Thomas Fitzpatrick
BY Hadley Johnson

PARCEL NUMBER	LEACH LINE FOOTAGE	TRENCH DEPTH FOOTAGE	ROCK UNDER PIPE FOOTAGE
1	430	5	3
2	350	3	1
3	370	3	1
4	430	3	3

GARY ERBECK, DIRECTOR, DEPARTMENT OF ENVIRONMENTAL HEALTH
BY Eric Klein DATE 4/1/04

This certification does not imply all conditions pursuant to the Resource Protection Ordinance and the Groundwater Ordinance have been met. The Department of Planning and Land Use should be consulted regarding the application of these ordinances relative to this project. Any resultant changes to the septic system design(s) must be re-evaluated by the Department of Environmental Health.

LAND DIVISION STATEMENT - OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER, AS SHOWN ON THE LATEST EQUALIZED COUNTY ASSESSMENT OF THE PROPERTY SHOWN ON THE TENTATIVE PARCEL MAP. ALL OF MY CONTIGUOUS OWNERSHIP WITHIN AND BEYOND THE BOUNDARIES OF THE TENTATIVE PARCEL MAP IS SHOWN. THE BASIS OF CREATION OF THE LOTS IN MY OWNERSHIP (E.G. PARCEL MAP, FINAL MAP, CERTIFICATE OF COMPLIANCE, RECORDED DEED BEFORE 2/1/72) AS INDICATED ON THE TENTATIVE. I UNDERSTAND THAT PROPERTY IS CONSIDERED CONTIGUOUS EVEN IF IT IS SEPARATED BY ROADS, STREETS, UTILITY EASEMENTS OR RAILROAD RIGHTS-OF-WAY. "FREEWAY" AS DEFINED IN SECTION 23.5 OF THE STREETS AND HIGHWAY CODES, SHALL NOT BE CONSIDERED AS ROADS OR STREETS.

I FURTHER CERTIFY THAT I WILL NOT, BY THIS APPLICATION, CREATE OR CAUSE TO BE CREATED, OR WILL NOT HAVE PARTICIPATED IN THE CREATION OF MORE THAN FOUR PARCELS ON CONTIGUOUS PROPERTY UNLESS SUCH PARCELS WERE CREATED BY MAJOR SUBDIVISION. FOR PURPOSES OF THIS CERTIFICATION, THE TERM "PARTICIPATED" MEANS HAVING COOPERATED WITH OR ACTED IN A PLANNING, COORDINATE OR DECISION-MAKING CAPACITY IN ANY FORMAL OR INFORMAL ASSOCIATION OR PARTNERSHIP FOR THE PURPOSE OF DIVIDING REAL PROPERTY.

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT. EXECUTED THIS 23 DAY OF March, 2004, AT Fallbrook, CALIFORNIA.

(ALL OWNERS MUST SIGN)

FITZPATRICK FAMILY TRUST 01-06-00

Thomas K. Fitzpatrick Trustee — THOMAS K. FITZPATRICK TRUSTEE
Sylvia F. Fitzpatrick Trustee — SYLVIA F. FITZPATRICK TRUSTEE

ADDRESS: 4111 PASEO DE LAS TORTUGAS
TORRANCE, CA 90505

PHONE: (310) 378-6611

1. COMPLETE TAX ASSESSOR'S NUMBER: 129-291-05
2. ABBREVIATED LEGAL DESCRIPTION: PARCEL 2 OF PM 5008
3. GENERAL PLAN REGIONAL CATEGORY: E.D.A.
4. COMMUNITY/SUBREGIONAL PLAN AREA: VALLEY CENTER
5. LAND USE DESIGNATION(S): (17) ESTATES
6. EXISTING ZONING: A-70 2 AC.
7. TAX RATE AREA: 94023

USE REGULATIONS	A-70
ANIMAL REGS	L
DENSITY	.5
LOT SIZE	2 AC.
BUILDING TYPE	C
MAX FIR AREA	--
FIR AREA RATIO	--
HEIGHT	G
COVERAGE	--
SETBACK	C
OPEN SPACE	--
SPECIAL AREA REGS	--

8. ASSOCIATED PERMITS: N/A
9. LOCATION AND STATUS OF EXISTING LEGAL ACCESS TO SUBJECT PROPERTY FROM A PUBLICLY MAINTAINED ROAD, (i.e. RECORDED EASEMENT, UNRECORDED IDENTIFY AND SPECIFY WIDTH): PROPOSED 40' PRIVATE ROAD & UTILITY ESMT. & EXISTING 20' PRIVATE ROAD & UTILITY ESMT. CREATED PRIOR TO FEB. 1972 AND 40' & 60' PRIVATE ROAD AND UTILITY ESMT.(CASTLECREST DR.) TO OLD CASTLE ROAD A PUBLIC ROAD
10. WATER SOURCE/ WATER DISTRICT: VALLEY CENTER MUNICIPAL WATER DISTRICT
11. SEPTIC/ SEWER DISTRICT: SEPTIC - SUBSURFACE DISPOSAL
12. FIRE DISTRICT: VALLEY CENTER FIRE DISTRICT
13. SCHOOL DISTRICT: VALLEY CENTER ELEMENTARY AND VALLEY CENTER HIGH SCHOOL

SIGNATURE OF APPLICANT
NAME: SAME AS ABOVE
ADDRESS:
PHONE:

Hadley Johnson 6/23/04
HADLEY JOHNSON RCE 14870

PREPARED BY:
WM. KARN SURVEYING INC.
129 WEST FIG ST.
FALLBROOK, CA 92028
760-728-1134
LS 2961/RCE 14870

ATTACHMENT C

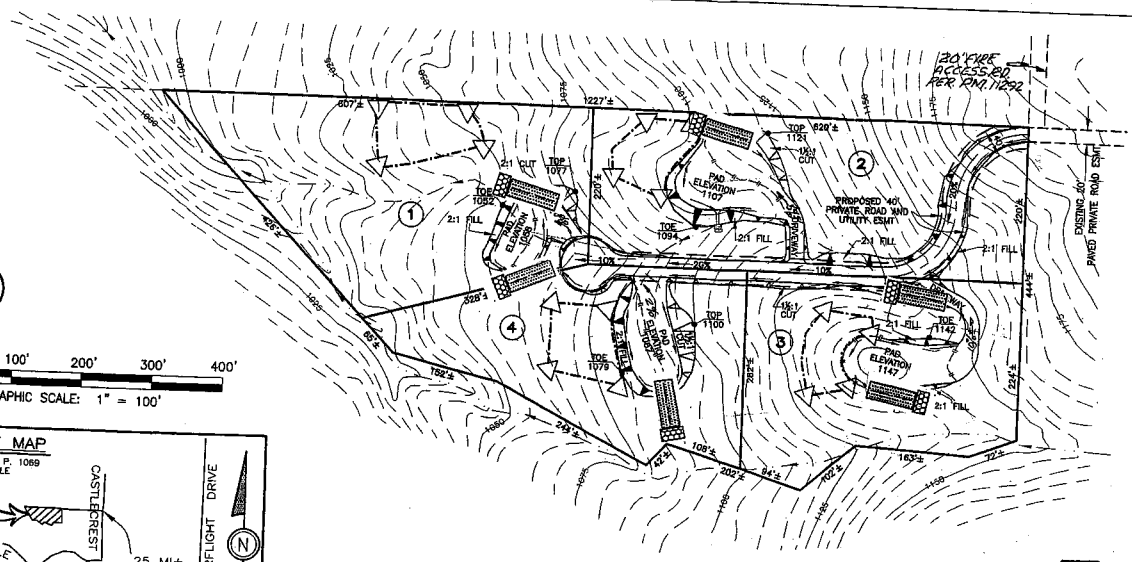
RELEVANT MONITORING DATA

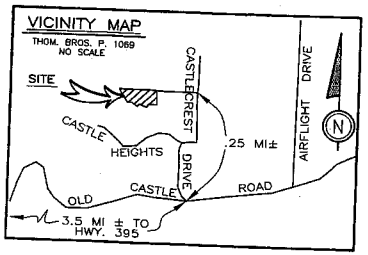
(NOTE: PROVIDE RELEVANT WATER QUALITY MONITORING DATA IF AVAILABLE.)

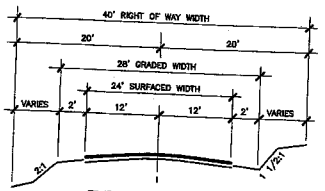
NONE AVAILABLE

ATTACHMENT D

PRELIMINARY GRADING PLAN







TYPICAL SECTION

ACCESS EASEMENT
NO SCALE

NOTES

1) NO GRADING PROPOSED
2) CONTOURS FROM COUNTY TOPO 398-1737

SOLAR NOTE

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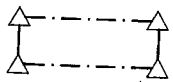
I:\8288\JAS_PRELIMINARY_GP

BIO FILTER

LEGEND

YARDAGE QUANTITIES

		YARDAGE CUT 1.5:1 & 2:1 RATIO	YARDAGE FILL 2:1 RATIO
1	PCL 1 3.0+/- AC GROSS 2.9+/- AC NET	1200 C.Y. TOP EL=1077	1200 C.Y. TOE EL=1052
2	PCL 2 3.1+/- AC GROSS 2.7+/- AC NET	2400 C.Y. TOP EL=1121	2400 C.Y. TOE EL=1094
3	PCL 3 2.4+/- AC GROSS 2.3+/- AC NET	1400 C.Y. TOP EL=1047	1400 C.Y. TOE EL=1042
4	PCL 4 2.3+/- AC GROSS 2.1+/- AC NET	2100 C.Y. TOP EL=1100	2100 C.Y. TOE EL=1079
	ROAD EASEMENT	1850 C.Y. TOP EL=1196	1850 C.Y. TOE EL=1062



AREA APPROVED FOR SEPTIC LAYOUT BY THE DEPARTMENT OF ENVIRONMENTAL HEALTH DATED FEBRUARY 13, 2004

20% DIRECTION OF DRAINAGE & PERCENT OF GRADE

TENTATIVE PARCEL MAP

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Sylvia F. Fitzpatrick Trustee — SYLVIA F. FITZPATRICK TRUSTEE

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DENSITY	.5
LOT SIZE	2 AC.
BUILDING TYPE	C
MAX. FIR AREA	--
FIR AREA RATIO	--
HEIGHT	G
COVERAGE	--
SETBACK	C
OPEN SPACE	--
SPECIAL AREA REGS	--

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SIGNATURE OF APPLICANT
NAME: SAME AS ABOVE
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6/23/04
HADLEY JOHNSON RCE 14870

PREPARED BY:
WM. KARN SURVEYING INC.
129 WEST FIG ST.
FALLBROOK, CA 92028
760-728-1134
LS 2961/RCE 14870

TREATMENT BMP LOCATION MAP

ATTACHMENT E

TREATMENT BMP DATASHEET

ON-SITE DRAINAGE CALCULATIONS

PRE CONSTRUCTION

SOIL GROUP "B"

C = 0.32

AREA = 10.8 ACS
Tc = 11 mins
I_{100} = 5.5
I_{85} = 1.4
Q_{85} = 0.32(1.4)(10.8)
Q_{85} = 4.84 cfs
Q_{100} = 0.32(5.5)(10.8
Q_{100} = 19 cfs

POST CONSTRUCTION

SOIL GROUP "B"

0.9 ACS DEVELOPED
80% IMPER C = 0.77

$$C_R = \frac{0.9(.77) + 9.9(0.32)}{10.8}$$

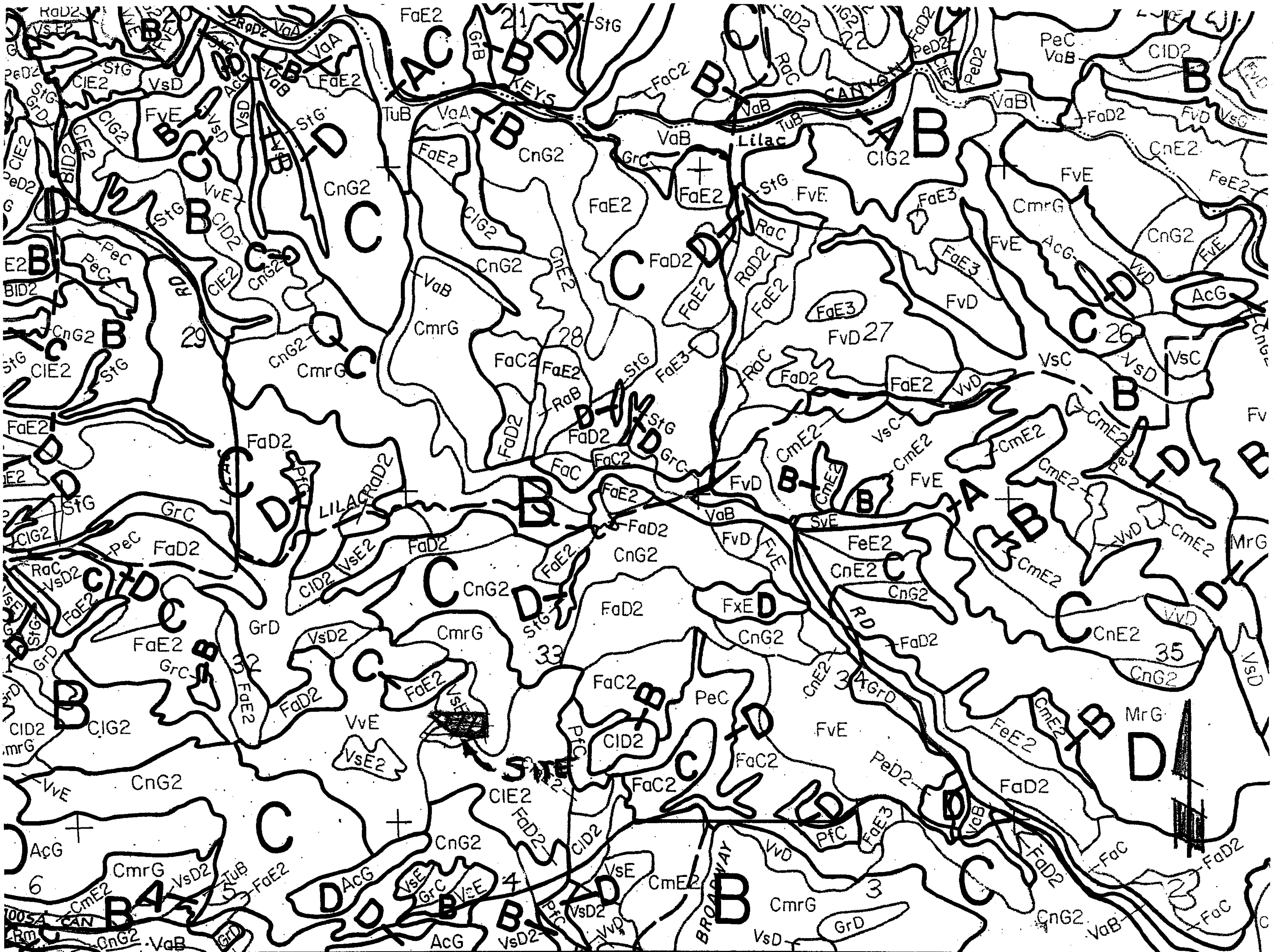
C_R = 0.358

AREA = 10.8 ACS
I_{85} = 1.4
Q_{85}(0.358)(1.4)(10.8)
Q_{85} = 5.41 cfs
Q_{100} = 0.358(5.5)(10.8)
Q_{100} = 21.3

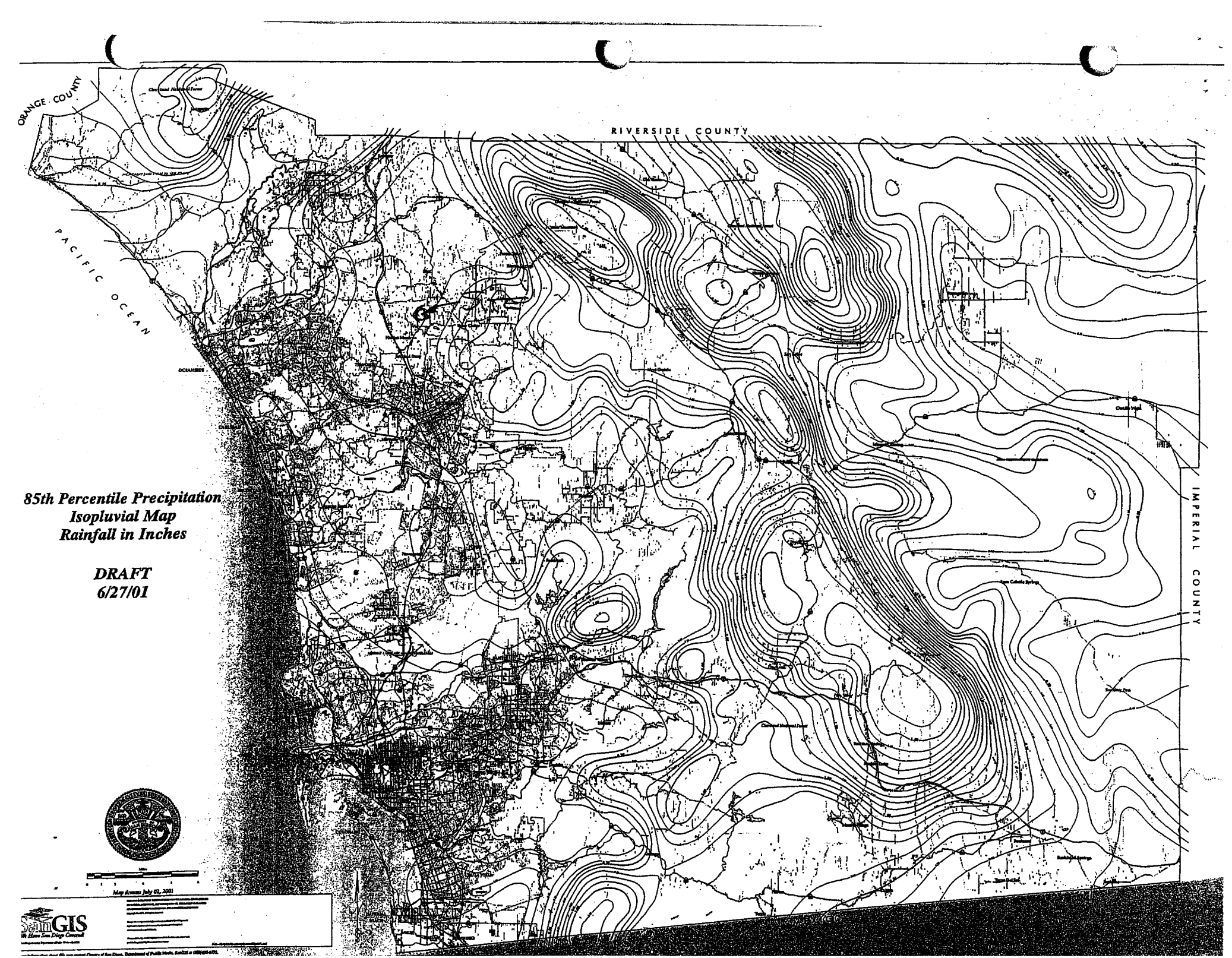
TABLE OF FLOWS

PRE CONSTRUCTION	AREA ON SITE	POST CONSTRUCTION
Q_{WQ} = 4.84 cfs		Q_{WQ} = 5.41 cfs
Q_{100} = 19 cfs		Q_{100} = 21.3 cfs

INCREASE in Q_{WQ} OF 0.57 cfs AND Q_{100} OF 2.3 cfs
WILL BE MITIGATED BY THE BIO FILTERS



30" 11 740 000 FEET (Joins sheet 24)



85th Percentile Precipitation
Isopluvial Map
Rainfall in Inches

DRAFT
6/27/01

ATTACHMENT F

OPERATION AND MAINTENANCE PROGRAM FOR TREATMENT BMP

APPENDIX H Estimated O & M Costs for BMP Project

Estimated values derived from Caltrans Pilot BMP Study. This spreadsheet will change as additional data becomes available.

						Labor			Equipment				Materials		Total	Comments
						Per. Hrs	Rate	Cost	Type	Days	rate	Cost	Item	Cost	Cost	
BIOFILTER – STRIPS and SWALES																
Preventive Maintenance and Routine Inspections																
ROUTINE ACTIONS	MAINTENANCE INDICATOR	FIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE ACTIVITY	SITE-SPECIFIC REQUIREMENTS											
Height of vegetation	Average vegetation height exceeds 12 inches, emergence of trees, or woody vegetation	Visual inspection of vegetation throughout strip/swale	Once during wet season, once during dry season,(depending on growth)	Cut vegetation to an average height of 8 inches	Remove any trees, or woody vegetation.	10	43.63	436.3	one-ton truck & hydroseeder	2	26.84	53.68	string trimmer, rake, fork, bags, safety equipment	50	539.98	
ess adequate vegetative r	Less than 90 percent coverage in strip invert/swale or less than 70 percent on swale side slope	Visual inspection of strip/swale. Prepare a site schematic to record location and distribution of barren or browning spots to be restored. File the schematic for assessment of persistent problems.	Assess quantity needed in May each year late wet season and late dry season.	Reseed/revegetate barren spots by Nov.		8	43.63	349.04	one-ton truck & hydroseeder	1	48.15	48.15	seed	150	547.19	
				Scarify area to be restored, to a depth of 2-inches, Restore side slope coverage with hydroseed mixture.		0	43.63	0	one-ton truck & hydroseeder	0	26.84	0			0	
				If after 2 applications (2 seasons) of reseeding/revegetating and growth is unsuccessful both times, an erosion blanket or equivalent protection will be installed over eroding areas		0	43.63	0	one-ton truck & hydroseeder	0	26.84	0	blanket	0	0	
Inspect for debris accumulation	Debris or litter present	Visual observation	During routine trashing, per Districts schedule.	Remove litter, and debris.	None	0	0	0	one-ton truck & hydroseeder	0	0	0			0	
Inspect for accumulated sediment	Sediment at or near vegetation height, channeling of flow, inhibited flow due to change in slope.	Visual observation	Annually	Remove sediment. If flow is channeled, determine cause and take corrective action. If sediment becomes deep enough to change the flow gradient, remove sediment during dry season, characterize and properly dispose of sediment, and revegetate.		16	43.63	698.08	one-ton truck & hydroseeder	1	48.15	48.15	seed, testing and disposal of sediment	300	1046.23	once every three years
				Notify engineer to determine if regrading is necessary. If necessary, regrade to design specification and revegetate swale/strip. If regrading is necessary, the process should start in May. Revegetate strip/swale in Nov. Target completion prior to wet season.	None	2	43.63	87.26				0			87.26	
Inspect for burrows	Burrows, holes, mounds	Visual observation	Annually and after vegetation trimming.	Where burrows cause seepage, erosion and leakage, backfill firmly.		0	0	0	one-ton truck & hydroseeder	0	26.84	0			0	
General Maintenance Inspection	Inlet structures, outlet structures, side slopes or other features damaged, significant erosion,emergence of trees, woody vegetation , fence damage, etc.	Visual observation	Semi-Annually, late wet season and late dry season.	Corrective action prior to wet season. Consult engineer if an immediate solution is not evident.	Remove any trees, or woody vegetation.	16	43.63	698.08	one-ton truck & hydroseeder	2	26.84	53.68			751.76	
TOTAL BIO FILTER AND SWALES						52		2288.76				203.68		300	2972.42	

ATTACHMENT G

CERTIFICATION SHEET

This Stormwater Management Plan has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Hadley Johnson RCE 14870

12/30/2005
Date